

ABSTRACT OF THE DISCLOSURE

An optical waveguide device wherein a substrate is fabricated from a lithium niobate ( $\text{LiNbO}_3$ ) substrate; at least one optical waveguide is formed in the lithium niobate substrate in such a manner that two Mach-Zehnder type directional couplers are formed, and further a phase shifter is formed in between these directional couplers; and the phase shifter is provided with an electrode of a structure including a first thin film layer being an ITO thin film containing an oxide and a second thin film layer being a chromium thin film an oxide of which is acidic, whereby an electric field produced in response to a voltage applied to the electrode is given to the optical waveguide to function as a variable optical attenuator.

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